

Notice of Allowability

Application N .

09/881,218

Examiner

Joshua L Pritchett

Applicant(s)

LIU ET AL.

Art Unit

2872

-- **Th MAILING DATE of this communication appears on the cover sheet with the corresponding address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed April 20, 2004.
2. ☒ The allowed claim(s) is/are 1,2,4,7 and 30-36.
3. ☒ The drawings filed on 02 April 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

This action is in response to Amendment filed April 20, 2004. Claim 1 has been amended as requested by the applicant.

Response to Arguments

Applicant's arguments, see Amendment, filed April 20, 2004, with respect to claims 1, 2, 4, 7 and 36 have been fully considered and are persuasive. The rejection of claims 1, 2, 4, 7 and 36 has been withdrawn.

Allowable Subject Matter

Claims 1, 2, 4, 7 and 30-36 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 30-37, reasons for allowance are the same as in the previous Office Action dated February 18, 2004.

Regarding claim 1, the prior art of record fails to teach or suggest directing an optical beam into an optical path and reflecting a first portion of the beam having a first wavelength back out of the optical path, with first and second pluralities of silicon and

Art Unit: 2872

polysilicon interfaces oriented substantially perpendicular to the semiconductor substrate. Samara-Rubio (US 6,600,864) teaches a tunable grating with polysilicon (135 and 137) extending into the optical path (103) and oriented substantially perpendicular to the semiconductor substrate (102). Samara-Rubio lacks the claimed silicon and polysilicon interfaces. Samara-Rubio teaches the use of two polysilicon capacitors but the polysilicon only interfaces with the insulators (153 and 155) therefore no interface between the silicon of the optical path and the polysilicon of the capacitors exists.

The remaining claims are dependent from claim 1 and are allowable for the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP



DREW A. DUNN
SUPERVISORY PATENT EXAMINER